संविरचन, वायरिंग एवं समुच्चयन प्रक्रिया गुणवत्ता आश्वासन प्रभाग/ FABRICATION, WIRING AND ASSEMBLY PROCESS QUALITY ASSURANCE DIVISION
इलेक्ट्रॉनिकी निर्माण गुणवत्ता आश्वासन समूह/ELECTRONICS MANUFACTURING QUALITY ASSURANCE GROUP
विश्वशनीयता तंत्र और सुरक्षा क्षेत्र/SYSTEMS RELIABILITY AND SAFETY AREA
अंतरीक्ष उपयोग केंद्र/SPACE APPLICATIONS CENTRE
अहमदाबाद-३८००१५/AHMEDABAD – 380 015

Ref.: FAQD/EMQG/SRSA/2026/02

Date: 16/01/2026

To: **Shri Naveen C S**
Manager, HMC-TFOD, HHV-Bengaluru

From: **Ishwarlal Prajapati**
Sci. /Engr, FAQD/EMQG/SRSA

Sub: Extension of Qualification Validity for 2 & 3-layer Metallization, Lithography and Dicing Process on Alumina Substrate at M/s HHV, Bengaluru.

This is with reference to the VoQ request from M/s. HHV, re-validation of metallization, lithography & dicing processes are completed. Facility maintenance and qualification testing are meeting the ISRO-PAX-305 requirements and the same has been reviewed and summarised as under,

1. Metallization, Lithography & Dicing facility found meeting the QA requirements *vide vendor's internal audit as well as audit conducted by SAC-QA on 11th December, 2025.*
2. VoQ samples for MIC metallization & Lithography (2 & 3-layer metallization) were witnessed by SAC QA and found acceptable. VoQ testing was carried out by M/s HHV and submitted the test report *HAT/TFOD/HMC/RQ-01/2025* which is reviewed by SAC QA.
3. Qualification of dicing process is completed successfully & results are summarized in test report *FAQD/EMQG/SRSA/2026/01.*
4. These samples were prepared by *Shri Vinod Kumar MS, Shri Mansur Ali MH and inspected by Shri Kishan C S.*

Based on the above, Qualification Validity for 2-layer (Cr-Au) & 3-layer (Cr-Cu-Au) Metallization, Lithography & Dicing processes on Alumina Substrate at M/s. HHV is **extended up to January, 2028** subject to consistency in the quality is maintained & assured.

Recommendation: Stud pull tester is required for quantitative measurement of metallization adhesion at M/s HHV.

Ishwarlal Prajapati
Sci. /Engr, FAQD/EMQG/SRSA

गुरविंदर सिंह
Gurvinder Singh,
Group Director, EMQG/SRSA

शिल्पा पंड्या 16-1-2026.
Shilpa Pandya,
Deputy Director, SRSA/SAC